## DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

# WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-019559

Address: 333 Burma Road **Date Inspected:** 13-Nov-2010

City: Oakland, CA 94607

**OSM Arrival Time:** 1900 **Project Name:** SAS Superstructure **OSM Departure Time:** 700 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name:** See below **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component:** OBG

## **Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, Kelly Leavitt, was present during the times noted above for observations relative to the work being performed.

This QA Inspector observed the following work in progress:

Bay 10

This QA Inspector observed the following work in progress for Bay 10.

ZPMC was using the Flux Core Arc Welding (FCAW) process.

ZPMC QC is identified as Li Jun, CWI Zhang Zhong.

Welding variables recorded by QC appeared to comply with the approved Welding Procedure Specification (WPS).

Listed below are the locations that were identified by this QA Inspector.

Component; Bike Path PCMK: BK004A6-025

Weld No.112,115,118,121,122,125,128,131

Welders: 040302, 500363 WPS-B-T-2232-TC-U4c-F

This QA Inspector observed the following work in progress for Bay 10.

ZPMC was using the Shielded Metal Arc Welding (SMAW) process.

ZPMC QC is identified as Li Jun, CWI Xhang Zhong.

# WELDING INSPECTION REPORT

(Continued Page 2 of 3)

Welding variables recorded by QC appeared to comply with the approved Welding Procedure Specification (WPS). Listed below are the locations that were identified by this QA Inspector.

Component; Bike Path, fit up

PCMK: BK004A1 Weld No. 030

Tack Welder: 057242 WPS-B-T-2113

Component; Bike Path, PCMK: BK004A1 Weld No. 027

Tack Welder: 048777 WPS-B-T-2113

### Heat Straightening

Heat straightening of PCMK, GGL-MQ-1958-001~012 under approved Heat Straightening procedure, HSR1(B)-9747. The in process temperature was observed as 230°C. The ZPMC QC was identified as Li Jun. The approved HSR procedure stated that a maximum temperature of 650°C with 1~3 numbers of applications was allowed. The distortion that was previously measured and recorded on the HSR was Maximum 5mm.

This QA Inspector performed MT on approximately 15% of the areas previously tested and accepted by ZPMC Quality Control personnel. The items observed by this Inspector, appears to comply with AWS D1.5 MT requirements. The members are identified as Bike Path BK004A6-001 weld numbers 68,74,94,112, BK004A7-001 weld numbers 9~12, 21~24,33~36,45~4857~60,69~72,81~84,93~96,105~108,117~120, and BK008A3-001 weld numbers 12,13,14,27,28,29,38,47,48,53,54,55,

#### Bay 11

#### Heat Straightening

Heat straightening of PCMK, SD1-BRSA5-2-6 A/B under approved Heat Straightening procedure, HSR1(T)-11557. The in process temperature was observed as 230°C. The ZPMC QC was identified as Li Jun. The approved HSR procedure stated that a maximum temperature of 650°C with 1~3 numbers of applications was allowed. The distortion that was previously measured and recorded on the HSR was Maximum 3mm.

## Heat Straightening

Heat straightening of PCMK, ND1-BRSA5-2-6 A/B under approved Heat Straightening procedure, HSR1(T)-11557. The in process temperature was observed as 230°C. The ZPMC QC was identified as Li Jun. The approved HSR procedure stated that a maximum temperature of 650°C with 1~3 numbers of applications was allowed. The distortion that was previously measured and recorded on the HSR was Maximum 8mm.

# Bay 16

This QA Inspector observed the following work in progress for Bay 16.

ZPMC was using the Flux Core Arc Welding (FCAW) process.

ZPMC QC is identified as Li Jun, CWI Zhang Zhong.

# WELDING INSPECTION REPORT

(Continued Page 3 of 3)

Welding variables recorded by QC appeared to comply with the approved Welding Procedure Specification (WPS). Listed below are the locations that were identified by this QA Inspector.

Component; OBG Steel Barrier

PCMK: W5-SB1-066

Weld No.075~078,082~087

Welder: 206296 WPS-B-T-2133

Component; OBG Steel Barrier

PCMK: W5-SB1-063

Weld No. 075~078,082~087

Welder: 220314 WPS-B-T-2133

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

# **Summary of Conversations:**

No significant conversations

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 15000422372, who represents the Office of Structural Materials for your project.

Inspected By:	Leavitt,Kelly	Quality Assurance Inspector
Reviewed By:	Riley,Ken	QA Reviewer